PLAZI
TAKING CARE OF FREEDOM

Plazi: Towards Linked Open Taxonomic Data in Switzerland

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Plazi

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Taxonomic names

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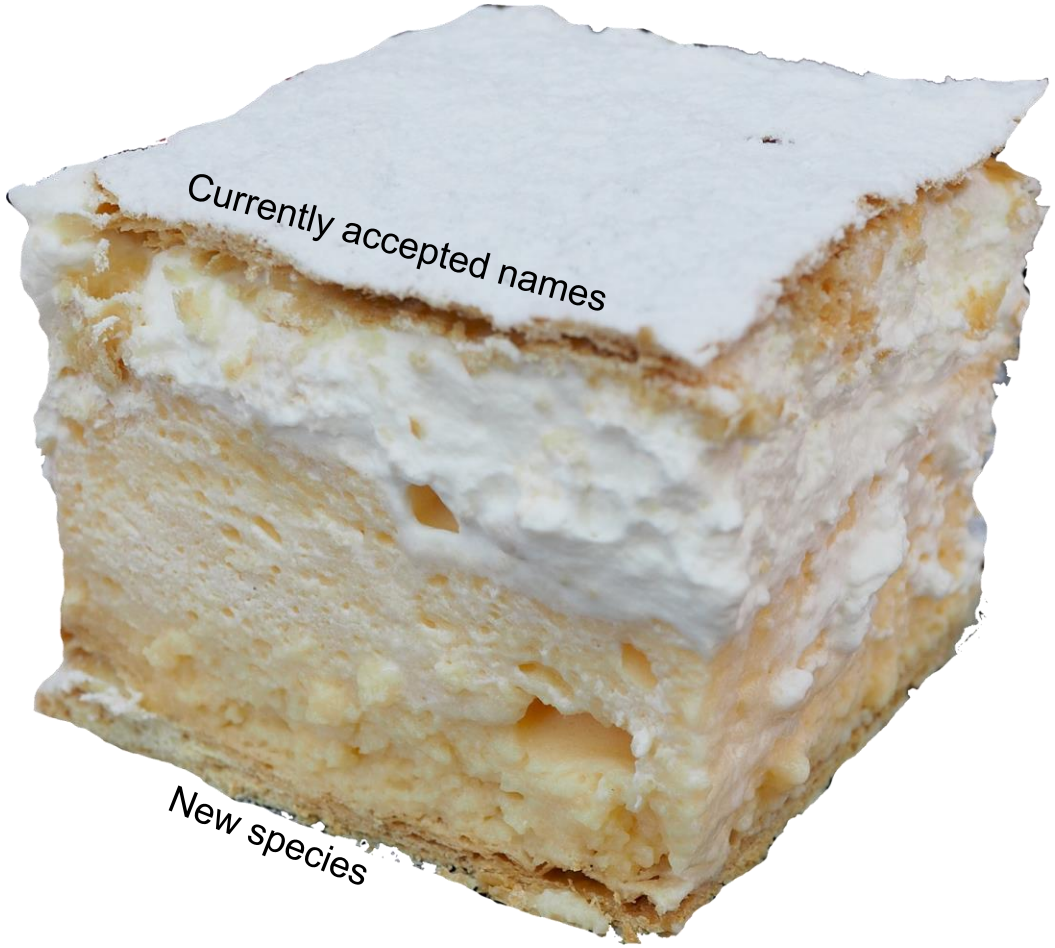
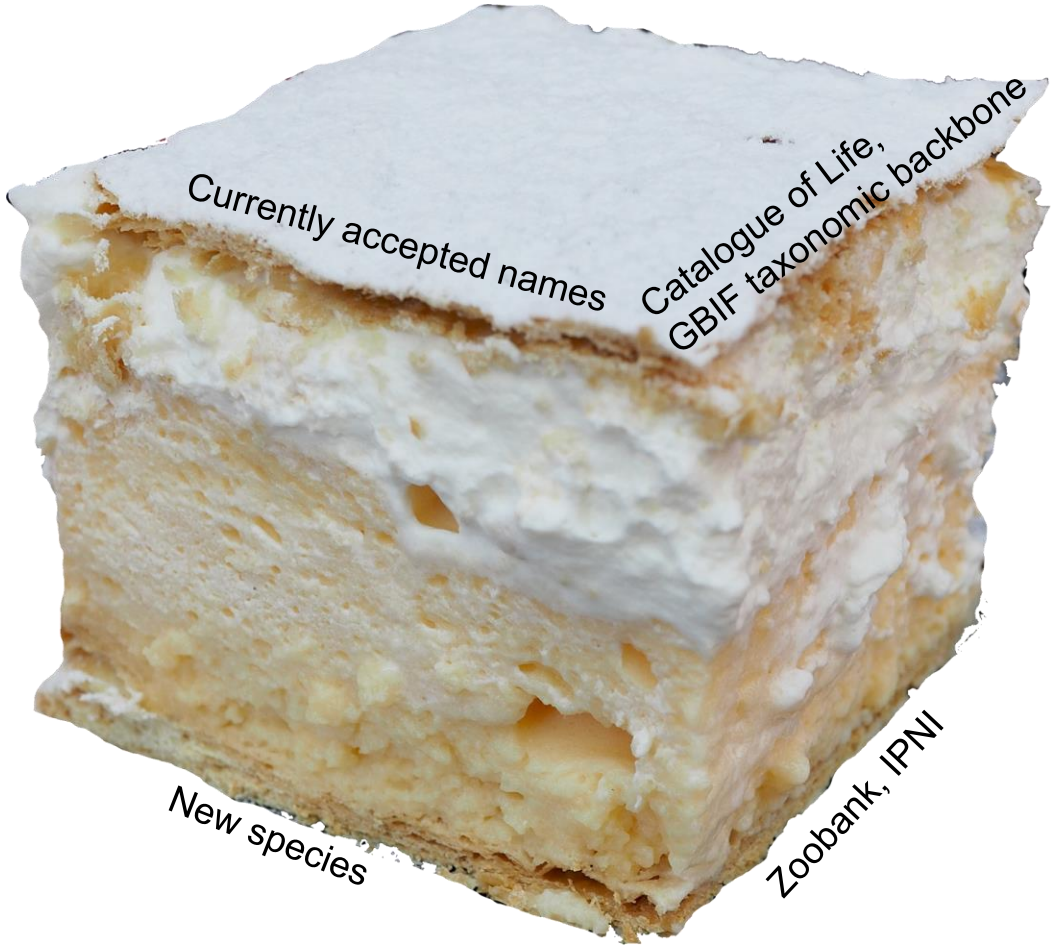
Taxonomic names

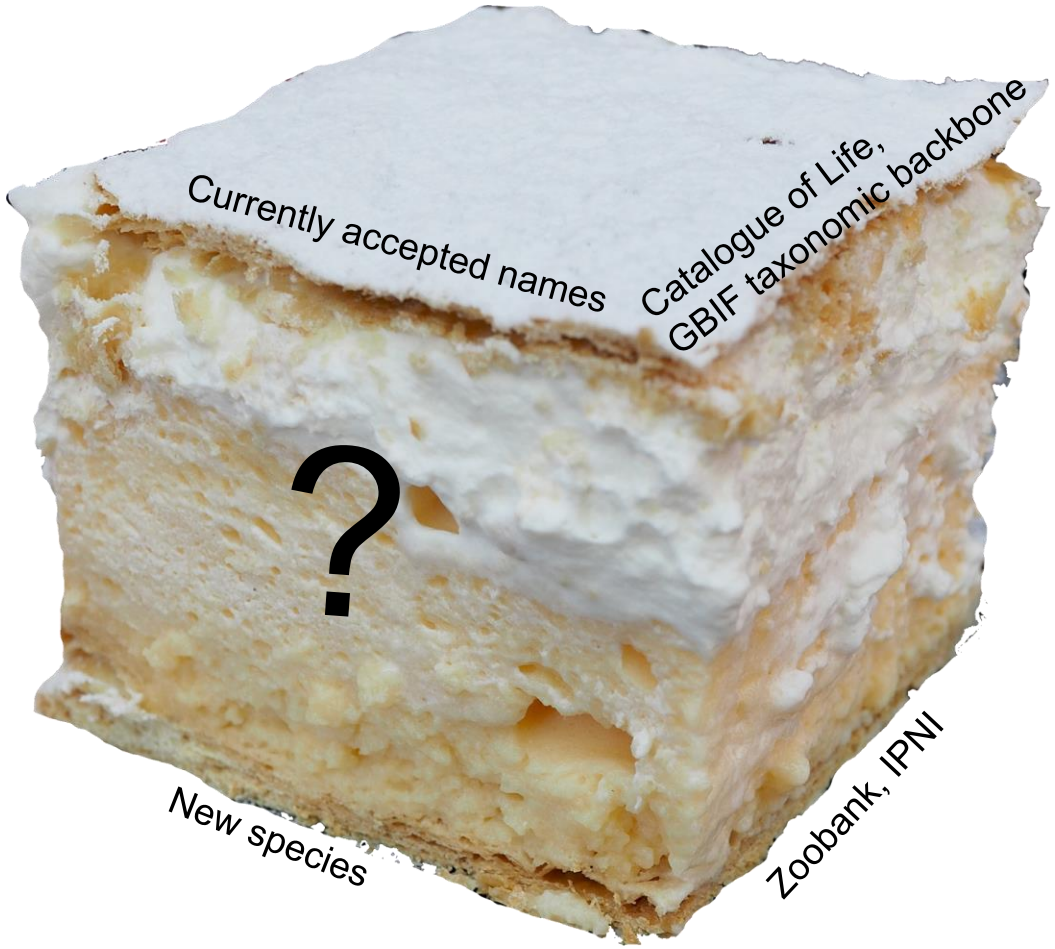
Taxonomic names



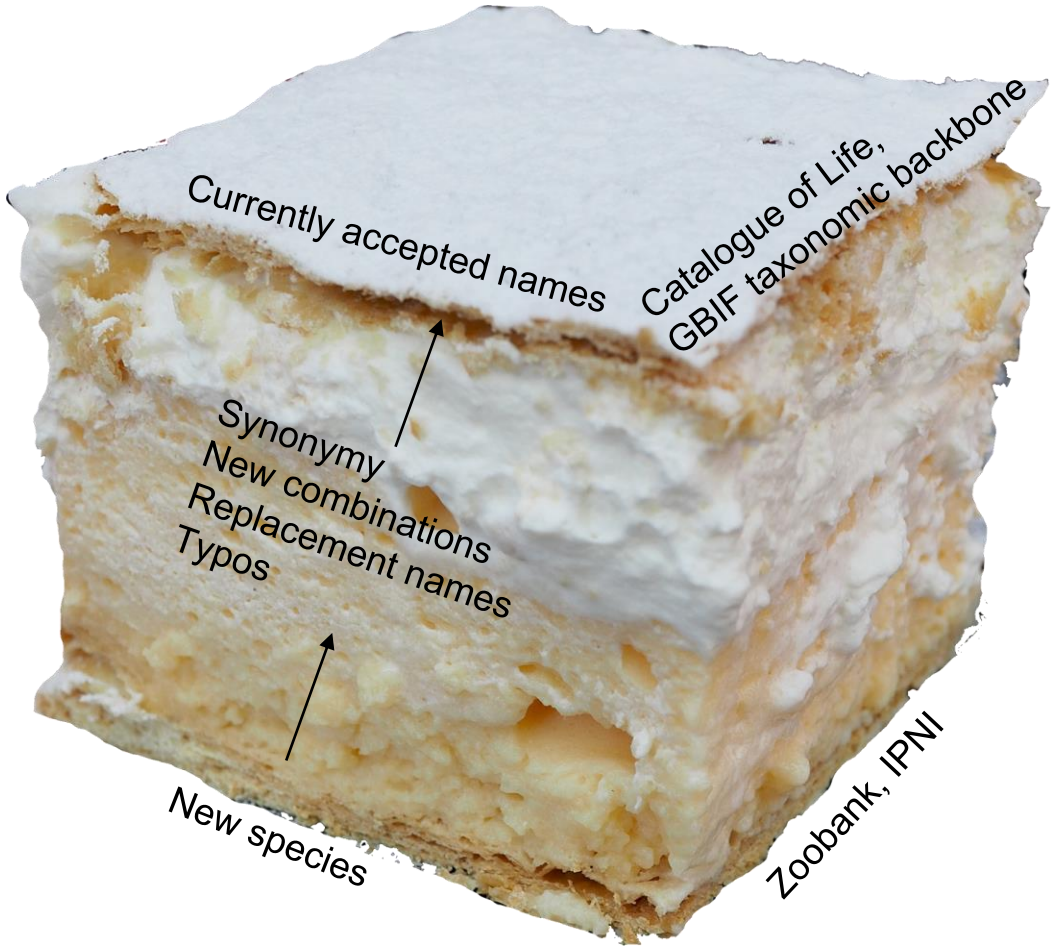
Taxonomic names



Taxonomic names



Taxonomic names

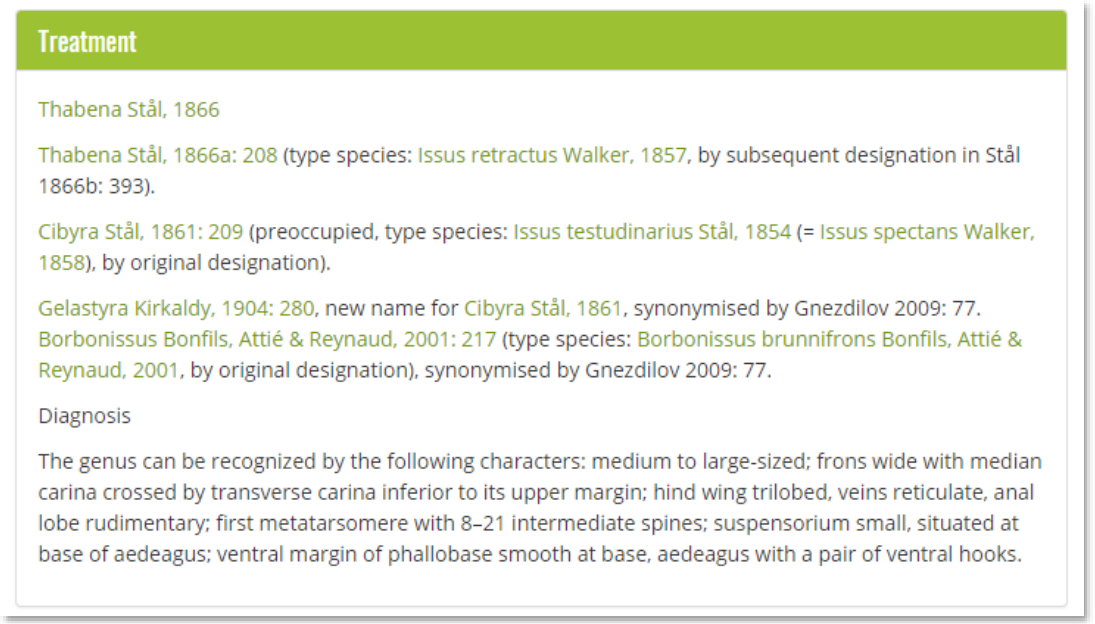


What is the currently accepted name of Aus bus?

Taxonomy

What is the currently accepted name of x?

- Get the name: catalogue
- Understand the history and reasoning of a name: Treatments



Treatment

Thabena Stål, 1866

Thabena Stål, 1866a: 208 (type species: Issus retractus Walker, 1857, by subsequent designation in Stål 1866b: 393).

Cibyra Stål, 1861: 209 (preoccupied, type species: Issus testudinarius Stål, 1854 (= Issus spectans Walker, 1858), by original designation).

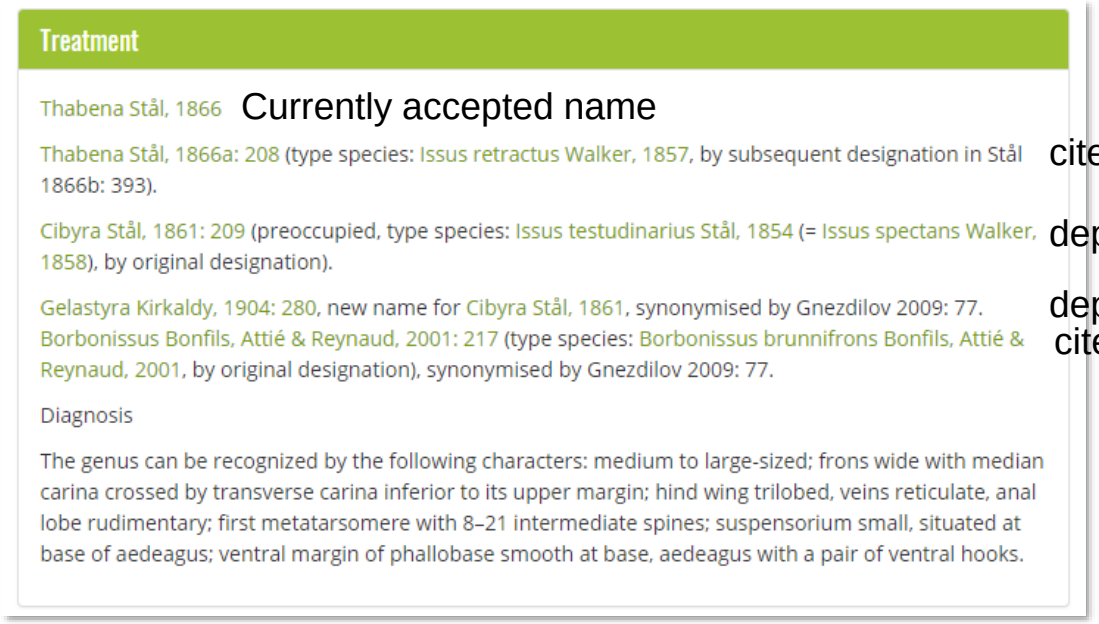
Gelastyra Kirkaldy, 1904: 280, new name for Cibyra Stål, 1861, synonymised by Gnezdilov 2009: 77. Borbonissus Bonfils, Attié & Reynaud, 2001: 217 (type species: Borbonissus brunnifrons Bonfils, Attié & Reynaud, 2001, by original designation), synonymised by Gnezdilov 2009: 77.

Diagnosis

The genus can be recognized by the following characters: medium to large-sized; frons wide with median carina crossed by transverse carina inferior to its upper margin; hind wing trilobed, veins reticulate, anal lobe rudimentary; first metatarsomere with 8–21 intermediate spines; suspensorium small, situated at base of aedeagus; ventral margin of phallobase smooth at base, aedeagus with a pair of ventral hooks.

Taxonomy

Catalogue: Implicit in the taxonomic literature or explicit as compilation



Currently accepted name

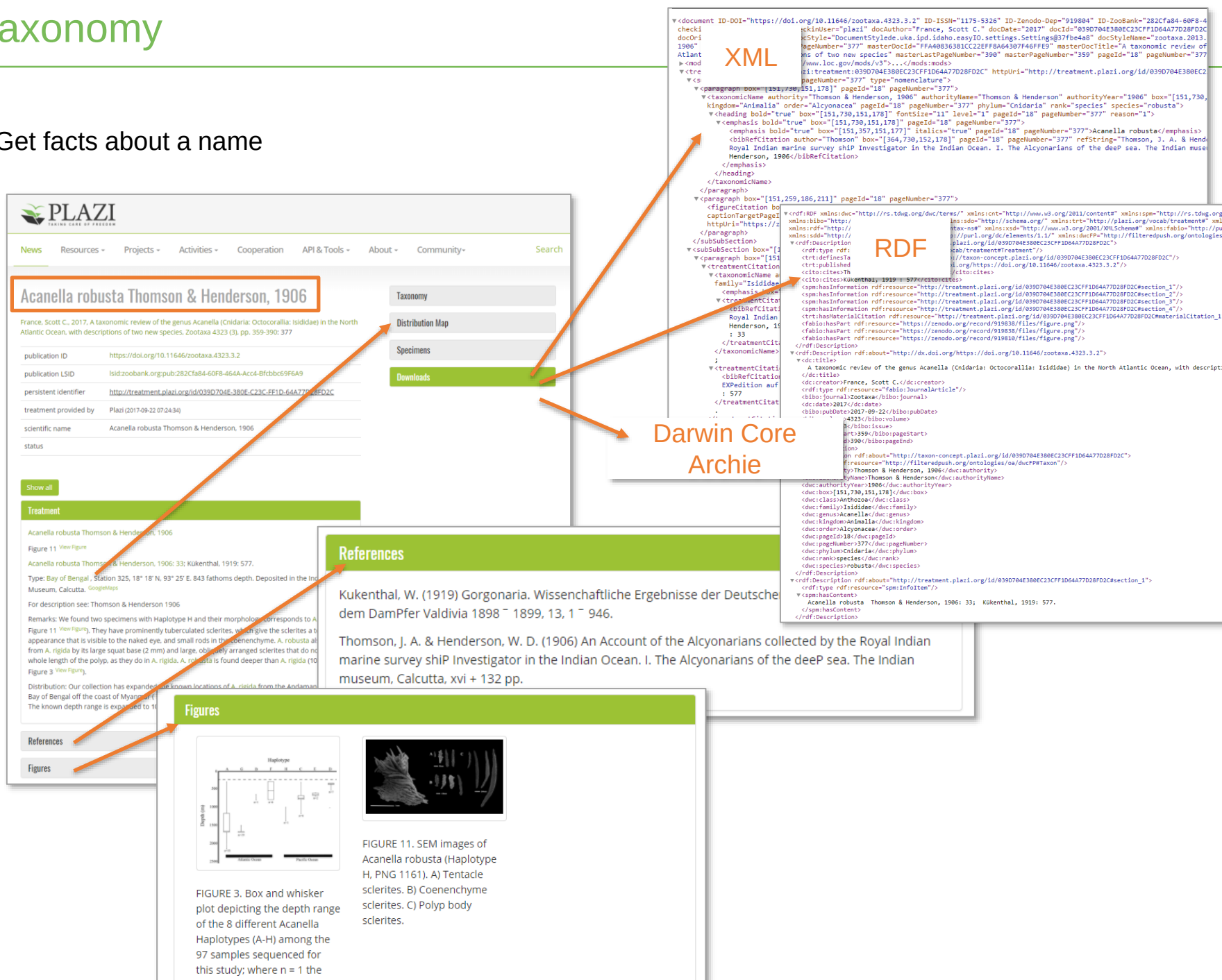
cites previous name usage

deprecates name (e.g. synonymy)

deprecates name (e.g. synonymy)
cites previous name usage

Taxonomy

Get facts about a name



Biodiversity Literature Repository

Zenodeo: http://zenodeo.punkish.org/examples

zenodeo docs terms of service install examples about

Examples

Web page with images

Let's say you want to make a web page that displays images for all records with the word 'pelagic' in their text. Below is a script that will do the work:

Note: change the value below for a different query

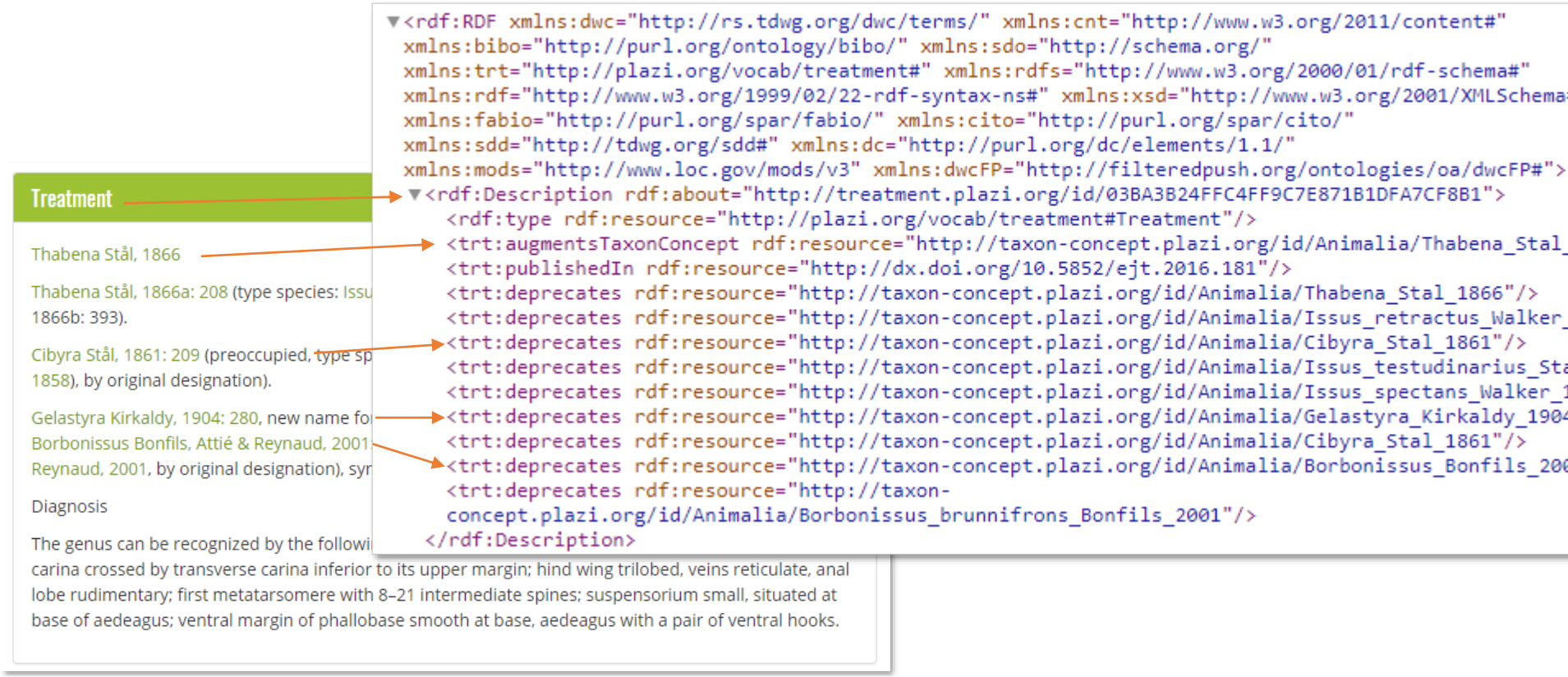
query tineidae

```
var url = "v1/records?communities=biosyslit&type=image&summary=false&images=true&q=tineidae&size=30";

var x = new XMLHttpRequest();

x.onload = function(event) {
    if (x.readyState === 4) {
        if (x.status === 200) {
            var res = JSON.parse(x.responseText);
            var html = "";
            for (var record in res) {
                html += "<figure>";
                var images = res[record];
                var j = images.length;
                for (var i = 0; i < j; i++) {
                    html += `<img src='${images[i]}'>`;
                }

                html += `<figcaption>
                    rec ID: <a href='https://zenodo.org/record/${record.split('/').pop()} target='_blank'>
                        ${record.split('/').pop()}</a>
                    </figcaption>
                </figure>`;
            }
            var imageDiv = document.getElementById('images');
            imageDiv.innerHTML = html;

            event.preventDefault();
            event.stopPropagation();
            return false;
        }
    }
};

x.onerror = function(e) {
    console.error(x.statusText);
};

x.open("GET", url, true);
x.setRequestHeader("Content-Type", "application/json;charset=UTF-8");
x.send();
```

RUN CODE

Taxonomy

Resource Description Framework (RDF) version of a treatment



1 treatment includes many facts

Taxonomy

Treatment data in the egovernment Schweiz
https://test.lindas-data.ch/sparql-ui/

- Facts about names from 150,000 treatments in the Swiss egovernment triple store
- Searchable through the SPARQL-endpoint
- Bases to link many datasets about or including species

https://test.lindas-data.ch/sparql

```
PREFIX treat: <http://plazi.org/vocab/treatment#>

SELECT * WHERE {
    ?treatment treat:augmentsTaxonConcept ?currentTaxon .
        ?treatment treat:deprecates ?oldTaxon .
} LIMIT 50
```

Table | Raw Response | Pivot Table | Google Chart | Geo

Showing 1 to 50 of 50 entries

Search: Show 50 entries

	treatment	currentTaxon	oldTaxon
1	http://treatment.plazi.org/id/8D47867AFFAEBD18FF4438C6153AD7D4	http://taxon-concept.plazi.org/id/Animalia/Pergalumna_nervosa_Berlese_1914	http://taxon-concept.plazi.org/id/Animalia/Galumna_nervosus_Djaparidze_1963
2	http://treatment.plazi.org/id/8D47867AFFF6BD40FF443D9112BED4E3	http://taxon-concept.plazi.org/id/Animalia/Camisia_segnis_Hermann_1804	http://taxon-concept.plazi.org/id/Animalia/Camisia_bicarinata_Djaparidze_1974
3	http://treatment.plazi.org/id/8D47867AFFDBBD6DFF443BE312B5D630	http://taxon-concept.plazi.org/id/Animalia/Lucoppia_burrowsi_Michael_1890	http://taxon-concept.plazi.org/id/Animalia/Lucoppia_orientalis_Djaparidze_1985
4	http://treatment.plazi.org/id/641E87CCFFA2816C37BCF8C4FC94FEF5	http://taxon-concept.plazi.org/id/Animalia/Otiorrhynchus_anophthalmoides_Reitter_1914	http://taxon-concept.plazi.org/id/Animalia/Otiorrhynchus_anophthalmoides_istriensis_Solari_1955
5	http://treatment.plazi.org/id/641E87CCFFA2816C37BCF8C4FC94FEF5	http://taxon-concept.plazi.org/id/Animalia/Otiorrhynchus_anophthalmoides_Reitter_1914	http://taxon-concept.plazi.org/id/Animalia/Otiorrhynchus_istriensis_Germar_1824
14	http://treatment.plazi.org/id/03BA3B24FFC4FF9C7E871B1DFA7CF8B1	http://taxon-concept.plazi.org/id/Animalia/Thabena_Stal_1866	http://taxon-concept.plazi.org/id/Animalia/Thabena_Stal_1866
15	http://treatment.plazi.org/id/03BA3B24FFC4FF9C7E871B1DFA7CF8B1	http://taxon-concept.plazi.org/id/Animalia/Thabena_Stal_1866	http://taxon-concept.plazi.org/id/Animalia/Issus_retractus_Walker_1857
16	http://treatment.plazi.org/id/03BA3B24FFC4FF9C7E871B1DFA7CF8B1	http://taxon-concept.plazi.org/id/Animalia/Thabena_Stal_1866	http://taxon-concept.plazi.org/id/Animalia/Cibyra_Stal_1861
17	http://treatment.plazi.org/id/03BA3B24FFC4FF9C7E871B1DFA7CF8B1	http://taxon-concept.plazi.org/id/Animalia/Thabena_Stal_1866	http://taxon-concept.plazi.org/id/Animalia/Issus_testudinarius_Stal_1854
18	http://treatment.plazi.org/id/03BA3B24FFC4FF9C7E871B1DFA7CF8B1	http://taxon-concept.plazi.org/id/Animalia/Thabena_Stal_1866	http://taxon-concept.plazi.org/id/Animalia/Issus_spectans_Walker_1858
19	http://treatment.plazi.org/id/03BA3B24FFC4FF9C7E871B1DFA7CF8B1	http://taxon-concept.plazi.org/id/Animalia/Thabena_Stal_1866	http://taxon-concept.plazi.org/id/Animalia/Gelastyra_Kirkaldy_1904
20	http://treatment.plazi.org/id/03BA3B24FFC4FF9C7E871B1DFA7CF8B1	http://taxon-concept.plazi.org/id/Animalia/Thabena_Stal_1866	http://taxon-concept.plazi.org/id/Animalia/Borbonissus_Bonfils_2001
21	http://treatment.plazi.org/id/03BA3B24FFC4FF9C7E871B1DFA7CF8B1	http://taxon-concept.plazi.org/id/Animalia/Thabena_Stal_1866	http://taxon-concept.plazi.org/id/Animalia/Borbonissus_brunnifrons_Bonfils_2001

Taxonomic names

Taxonomy

Conclusion

Scientific names allow linking all facts about taxa
Scientific names play a decisive role in providing access to data collected in DiSSCO
Scientific names are the gateway to facts about taxa
Switzerland has a unique chance to provide those facts

The future

Let’s convert all taxonomic literature about species in Switzerland into facts and in the longer term contribute to link all names

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Thank you!

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